



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
-----------------	-------------	----------------------	---------------------	------------------

10/562,012

12/23/2005

Hiroyuki Furushima

Q91175

2834

23373 7590 05/05/2009
SUGHRUE MION, PLLC
2100 PENNSYLVANIA AVENUE, N.W.
SUITE 800
WASHINGTON, DC 20037

EXAMINER

TSENG, CHENG YUAN

ART UNIT

PAPER NUMBER

2184

MAIL DATE

DELIVERY MODE

05/05/2009

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/562,012	Applicant(s) FURUSHIMA ET AL.	
	Examiner CHENG-YUAN TSENG	Art Unit 2184	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 27 April 2009.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 5-13 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 5-13 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 12/23/2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Finality Withdrawn

1. Applicant's request for reconsideration of the finality of the rejection of the last Office action is persuasive and, therefore, the finality of that action is withdrawn.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless - (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

3. Claims 5-13 are rejected under 35 U.S.C. 102(e) as being anticipated by Yuen et al. (U.S. Patent 6,850,808), hereinafter referring to as Yuen.

Referring to claim 5, Yuen discloses **a peripheral device for a programmable logic controller** (fig. 2, programmable logic controller 22 with server computers 24), comprising:

a processor (fig. 2, processor 26); and

a memory (fig. 2, memory 28) storing **software modules** (fig. 2, control program 34; fig. 5, automation desktop), the software modules comprising:

an instruction table for storing instructions (col. 5, lines 8-10, I/O table; fig. 5, template conveyor 213 with library test LIB) and **corresponding input/output types of parameters** (col. 5, lines 8-10, control variables) for the instructions;

a search/determination means (fig. 3, repository 50; fig. 5, template library 208) for searching the instruction table for **an instruction in a code in a portion of a sequence program** (fig. 3, project) selected as diversion data **from an existing diversion-source sequence program** (fig. 3, library 60), to determine **a corresponding input/output type of a parameter** (fig. 3, control variables of templates 70; col. 5, lines 39-40) for the instruction;

a search result creating/storing means (fig. 3, wrapper program 90; col. 6, line 66 through col. 7, line 1) for creating and storing [into a memory (claim 7)] **a search result table**

Art Unit: 2184

(col. 7, lines 1-6, linking variables in memory) by **combining an address** (col. 6, lines 59-65, linking, such as linking DLLs) in the code in the selected portion of the sequence program, with the determined corresponding input/output type;

a component data creating means (fig. 3, wrapper program 90) for **creating a variable data table** (fig. 7, block 326, record new version of template) by replacing the determined corresponding input/output types stored in the search result table with variable names, and for creating **component data** (fig. 6, create compound object 232) by adding the corresponding variable names to variables and to circuit information; and

a component data diversion means (fig. 6, system equipment hierarchy) for diverting the component data into **an arbitrary position in a designated sequence program** (fig. 8, Kam & Joe's plant 660).

Referring to claims 7 and 13, they recite the corresponding limitations of claim 5 as set forth above. Therefore, they are rejected accordingly.

As to claims 6 and 8, Yuen discloses the peripheral device for the programmable logic controller according to claim 5, further comprising: **a sequence-program-component storing means**

Art Unit: 2184

(fig. 2, memory 44) for storing into a component storage the created component data as a sequence program component; **a sequence-program-component displaying device** (fig. 1, computer display 25) for displaying the sequence program components stored in the component storage; **a sequence-program-component selecting means** (fig. 4, automation desktop 200) for selecting a desired sequence program component from the sequence program components displayed by the sequence-program-component displaying device; and **a sequence-program-component diversion means** (fig. 2, operating system 36) for diverting the selected sequence program component into a new sequence program.

As to claims 9 and 10, Yuen discloses the peripheral device for the programmable logic controller according to claim 5, wherein the input/output types of the parameters for the instructions comprise **an input type, an output type, and an internal type** (col. 3, lines 21-27, programming language variables has read/write/local variables).

As to claims 11-12, Yuen discloses the peripheral device for the programmable logic controller according to claim 5, wherein **a user selects the portion of the sequence program** (fig.

Art Unit: 2184

8, automation desktop 600 is a user application) from the existing diversion-source sequence program being displayed.

Response to Arguments

4. Applicant's arguments filed on April 27, 2009, have been fully considered, but they are not deemed to be persuasive.

Applicants request withdrawing finality (pages 2-3).

As courtesy, Examiner withdraws finality for the Office action mailed January 27, 2009. It appears Applicants misquoted the interview conclusion. Examiner clearly indicated the cited prior art for Office action mailed August 29, 2008 does not appear to be the closest art, however, it does not mean the cited art does not consider suitable for proper rejection. In another word, there is NO agreement being made in writing or in verbal between Examiner and Applicants' representative that the application is patentable over the Zifferer, Beck and Junglieb cited by the previous Examiner, see Interview Summary, of November 25, 2008. However, Examiner believes Applicants representative's misunderstanding caused the claims being amended on December 1, 2008, thus consequently finally rejected with new grounds of rejections. Nevertheless, Examiner is withdrawing finality for courtesy reasons.

Applicants argue that Yuen does not disclose "an instruction table for storing instructions and corresponding input/output types of parameters for the instructions", because ordinary skilled person would recognize the differences between instructions and variables (pages 3-4).

Examiner respectfully disagrees with Applicants, because Yuen clearly shows "template conveyor (Library Test Lib)" 213 in fig. 5. Ordinary skilled artisan would know such a library would contain instructions and parameters for library routines. The "input/output types of parameters for the instructions" are known or interpreted as "call by reference", "call by value" types of variables. Thus, the cited Template Conveyor (Library Test Lib) has library routines, and each library routines has input/output types of parameters. For example, Yuen states "providing a plurality of templates from at least one library, wherein each template has at least one respective control variable ..." in claim 1.

Applicants argue that Yuen doe not disclose "a search/determination means for searching the instruction table for an instruction in a code in a portion of a sequence program selected as diversion data from an existing diversion-source

Art Unit: 2184

sequence program, to determine a corresponding input/output type of a parameter for the instruction" as recited in claim 5, because Applicant and one with skill in the art will recognize cited fig. 3 as merely schematic (pages 5-6).

Examiner respectfully disagrees with Applicants, because Examiner clearly points out the relationships of project, library, templates and repository from various sections of fig. 3. A skilled artisan will understand that the fig. 3 describes the functions and relationships of the searching, determining or identifying of templates from library within repository via application interface 95 etc.

Applicants argue that Yuen does not disclose "a search result creating/storing means for creating and storing a search result table by combining an address in the code in the selected portion of the sequence program, with the determined corresponding input/output type", because Applicant and one ordinary skill in the art cannot understand why DLL would be considered as address (pages 6-7).

Examiner respectfully disagrees with Applicants, since DLL is dynamically combined at the time of linking (combining). Examiner did not corresponding "address" with DLL as Applicants argued, but the "combining an address" with DLL.

Conclusion

5. Applicant's amendment necessitated the new grounds of rejection presented in this Office action. Accordingly, this action is made final. See MPEP §706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a). A shortened statutory period for reply to this final action is set to expire in THREE MONTHS from the mailing date of this action. In the event a first reply is filled within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date of the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136 (a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than six months from the date of this final action.

Contact Information

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Chengyuan Tseng whose telephone number is (571)272-9772. The examiner can normally be reached on 09:00-16:00 Monday-Thursday. If attempts

Art Unit: 2184

to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Dr. Henry Tsai can be reached on (571)272-4176. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/CT/

Patent Examiner, AU 2184

/Henry W.H. Tsai/

Supervisory Patent Examiner, Art Unit 2184